

Citation:

Jago R, Baranowski T, Baranowski JC. Fruit and vegetable availability: a micro environmental mediating variable? Public Health Nutr. 2007 Jul;10(7):681-9. Epub 2007 Feb 20.

PubMed ID: [17381953](#)

Study Design:

Systematic Review

Class:

M - [Click here](#) for explanation of classification scheme.

Research Design and Implementation Rating:

NEUTRAL: See Research Design and Implementation Criteria Checklist below.

Research Purpose:

1. To illustrate associations between food availability and consumption
2. To highlight how increasing availability has been used to increase consumption
3. To propose the mechanisms by which availability is associated with consumption and
4. To highlight the areas in which further research is required.

Inclusion Criteria:

Computerized search of PubMed and PsycINFO conducted in December 2005 using keywords: availability, accessibility, fruit and vegetables. Additional search was conducted manually and through review of authors' personal records.

Exclusion Criteria:

Not specified.

Description of Study Protocol:

Recruitment: Studies were found via online search and manual review of literature.

Design: Systematic review

Blinding used (not applicable)

Intervention (not applicable)

Statistical Analysis (not applicable)

Data Collection Summary:

Timing of Measurements: Literature search conducted in December 2005, cited studies conducted 1993 to 2006.

Dependent Variables

- Consumption of Fruits and Vegetables (F & V)

Independent Variables

Associations related to the following were discussed:

Home availability of F & V, age, gender, socio-economic status, ethnicity, geographic location, School availability of F & V, preferences, accessibility of F & V and shopping patterns.

Control Variables (specific to individual studies)

Description of Actual Data Sample:

Initial and final N:

Thirty one (31) studies including qualitative, quantitative/cross-sectional studies, intervention, longitudinal and association designs.

Age, Ethnicity, Other relevant demographics and Anthropometrics (per individual studies)

Location: Researchers based in United Kingdom and United States of America.

Summary of Results:

Key Findings

- Availability of fruits and vegetables relates to consumption and the degree of availability differed by socio-economic status but not ethnicity.
- Availability of fruits and vegetables also moderates the association between other psychosocial variables and intake.
- Home availability of fruits and vegetables is both directly and indirectly associated with children's consumption.
- Preferences are a consistent indicator of consumption and the association between intake and availability is moderated by preferences.
- Interventions to increase consumption have been successful with continued intake over time with continued availability.

Author Conclusion:

The availability of fruits and vegetables is associated with intake. The relationship is sustained over time. Changes in availability are likely to mediate changes in consumption.

Reviewer Comments:

Strength: thorough review and presentation of selected studies

Weakness: Various populations and formats of selected studies difficult to pool together

Research Design and Implementation Criteria Checklist: Review Articles

Relevance Questions

1.	Will the answer if true, have a direct bearing on the health of patients?	Yes
2.	Is the outcome or topic something that patients/clients/population groups would care about?	Yes
3.	Is the problem addressed in the review one that is relevant to nutrition or dietetics practice?	Yes
4.	Will the information, if true, require a change in practice?	Yes

Validity Questions

1.	Was the question for the review clearly focused and appropriate?	Yes
2.	Was the search strategy used to locate relevant studies comprehensive? Were the databases searched and the search terms used described?	Yes
3.	Were explicit methods used to select studies to include in the review? Were inclusion/exclusion criteria specified and appropriate? Were selection methods unbiased?	No
4.	Was there an appraisal of the quality and validity of studies included in the review? Were appraisal methods specified, appropriate, and reproducible?	No
5.	Were specific treatments/interventions/exposures described? Were treatments similar enough to be combined?	No
6.	Was the outcome of interest clearly indicated? Were other potential harms and benefits considered?	Yes
7.	Were processes for data abstraction, synthesis, and analysis described? Were they applied consistently across studies and groups? Was there appropriate use of qualitative and/or quantitative synthesis? Was variation in findings among studies analyzed? Were heterogeneity issues considered? If data from studies were aggregated for meta-analysis, was the procedure described?	No
8.	Are the results clearly presented in narrative and/or quantitative terms? If summary statistics are used, are levels of significance and/or confidence intervals included?	No
9.	Are conclusions supported by results with biases and limitations taken into consideration? Are limitations of the review identified and discussed?	Yes
10.	Was bias due to the review's funding or sponsorship unlikely?	Yes

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